

Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

AFRA's (BI) Centrifugal Fans feature efficiently designed backward inclined impellers for industrial air moving applications. Designed for **clean air applications**, the BI fans offer energy savings and operate at lower noise levels than another industrial fan types.

One the most common uses for BI fans is on the clean air side of a dust collector system. It induces the flow to move the contaminants through the system. A dust collector system can be designed with the fan upstream, clean air side, or downstream, dirty air side. For a particular application, each will have its advantages and disadvantages. If the system has the fan installed on the clean air side of the dust collector, where little or no dust is present, a more efficient fan can be selected. If the system has the fan installed on the dirty air side of the dust collector, a material handling fan must be selected.



The BI fan can be installed on the clean air side of a dust collector system. This installation design will minimize blade erosion and reduce energy costs compared to installing a material handling fan on the dirty air side. A material handling fan emphasizes ruggedness and durability in its design, not efficiency, for heavy material loading. Due to continuous dust flow through the fan, the fan blades will eventually erode, requiring wheel replacement. A BI fan, however, emphasizes efficiency in its design, thus providing energy savings. By installing a BI fan on the clean air side of the dust collector, where little or no dust is present, blade erosion is also minimized, reducing maintenance costs.

Note that although the Backward Inclined Airfoil (BIA) fan is more efficient, it should never be used in dust collecting systems.

Features

- Welded steel with side angle reinforcement on housing
- Class I, II, III, and IV construction
- Inspection door are provided on all sizes
- Impeller diameters from 305 through 2005
- Flow capacities to $102 \text{ m}^3 / \text{s}$
- Static Pressure to 508 mm wg
- Temperature range from -20°C to 300°C
- Available in 8 different arrangements

Heat Fans

All BI fans can be used for operation at elevated temperatures provided certain modifications are made. The effect of various temperatures on material strength must also be considered. Maximum temperatures for each arrangement and fan modifications to meet these temperatures are given in Table 1 and 2. Safe speed limits at various temperatures for each fan size are listed in Tables 3.

Corrosion Resistance

Corrosion problems result when the air contains one or more chemicals which are corrosive in nature. The extent of the corrosion problem, however, varies with the specific properties of the chemical involved, the concentration, moisture content, and temperature of the mixture. Protective coatings and special construction are available to combat corrosion problems.

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Table 1. maximum temperatures and modifications

Arrangement No.	Maximum Temperature $^{\circ}C$		Modifications
	Standard	Modified	
1 & 8	150	310	Heat slinger and guard
9	150	310	Heat slinger, slinger guard and motor heat shield
10	95	310	Heat slinger, slinger guard and motor heat shield
2	135	--	
3 & 7	95	--	
4	80	--	

Table 2. Arrangements and maximum temperatures

Fan size (mm)	Arrangement and maximum temperature ($^{\circ}C$)							
	1 310	2 135	3 95	4 80	7 95	8 310	9 310	10 310
315	*	*		*		*	*	*
355	*	*		*		*	*	*
400	*	*		*		*	*	*
450	*	*		*		*	*	*
500	*	*		*		*	*	*
560	*	*		*		*	*	*
635	*	*		*		*	*	*
710	*		*	*	*	*	*	*
810	*		*	*	*	*	*	*
900	*		*		*	*	*	*
1000	*		*		*	*	*	*
1120	*		*		*	*	*	
1250	*		*		*	*	*	
1400	*		*		*	*	*	
1600	*		*		*	*	*	
1800	*		*		*	*	*	
2000	*		*		*	*	*	

Table 3. Maximum safe speed at $20^{\circ}C$

Fan size (mm)	Class I	Class II	Class III	Class IV
315	3000	4000	5000	6200
355	2700	3500	4500	5500
400	2400	3100	4000	4900
450	2150	2800	3500	4400
500	1950	2500	3200	3900
560	1700	2200	2800	3500
635	1550	2000	2500	3100
710	1350	1750	2200	2750
810	1200	1550	2000	2400
900	1050	1400	1750	2200
1000	950	1250	1600	1950
1120	850	1100	1400	1720
1250	750	1000	1250	1550
1400	700	900	1100	1400
1600	600	780	1000	1200
1800	530	700	850	1100
2000	480	630	800	950

Table 4. Maximum safe speed factor for alloy impeller construction at elevated temperature

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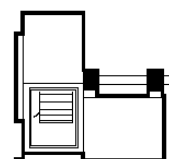


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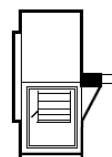
Material	Temperature ($^{\circ}C$)						
	-45	20	90	150	200	260	315
Steel	1	1	0.97	0.95	0.94	0.93	0.92
Aluminium	1	1	0.98	--	--	--	--
304 Stainless steel	1	1	0.88	0.82	0.78	0.75	0.73
316 Stainless steel	1	1	0.95	0.92	0.89	0.86	0.84
347 Stainless steel	1	1	0.95	0.93	0.90	0.90	0.90

Drive Arrangements

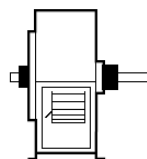
- (1) Has a shaft and bearing assembly designed to be driven by a separately mounted motor. These fans are available throughout the range of sizes. The fan can be modified for operation to a maximum temperature of $312^{\circ}C$



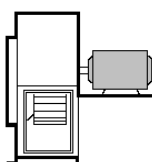
- (2) Has the impeller overhung with a compact bearing and shaft assembly for belt driven or direct connection. Available in Class I and Class II construction for sizes 315 through 635. Temperature to $130^{\circ}C$



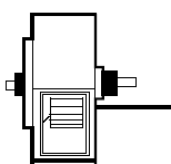
- (3) For maximum structural strength, bearings are mounted on each side of the impeller. Available in sizes 710 through 2000. These units are limited to handling dry uncontaminated air to $90^{\circ}C$ maximum.



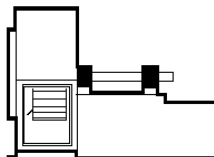
- (4) Direct drive assembly with the impeller mounted directly to the motor shaft. Compact and easy to maintain design for applications where exact conditions are established. Available as standard in sizes 315 through 810. Larger sizes are custom made. Temperature to $80^{\circ}C$



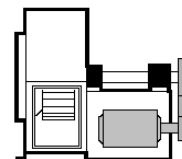
- (7) This is an arrangement 3 fan with a pedestal added to accommodate a motor and flexible coupling. Available in sizes 710 through 2000. These units are limited to handling dry uncontaminated air to $90^{\circ}C$ maximum



- (8) Same as arrangement 1 fan but with an extended pedestal to accommodate a motor and flexible coupling. These fans are available throughout the range of sizes. The fan can be modified for operation at elevated temperature to a maximum of $315^{\circ}C$



- (9) V-belt drive with the motor mounted on the bearing base support. A slide rail base under the motor provides for easy adjustment of the belt tension. It is located on the right side as standard. The fan can be modified for operation at elevated temperatures to a maximum of $315^{\circ}C$



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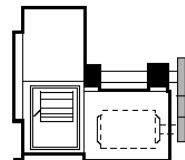
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(10)

Is available in sizes 315 through 1000. The motor is mounted directly under the fan shaft on a base so that the belt tension can be adjusted by means of a slide rail base. The fan can be modified for operation at elevated temperatures to a maximum of 315°C



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Performance Correction for Temperature and Altitude

a. Fan Calculations for Elevated Temperatures at Sea Level

When a fan operates at standard conditions, it is handling air at 20°C as measured at sea level. If the performance of the fan is based on standard conditions, the fan can be selected directly from the performance tables in this catalogue

When a fan operates at temperature other than 20°C , a temperature correction factor is utilized to convert operating conditions to standard conditions. This conversion must be done before the fan can be selected from the performance tables in this catalogue. After the fan is selected at standard conditions, the temperature correction factor is utilized again to convert the standard motor power to the operating motor power. This is shown in the example below. The temperature correction factors are found in Table 5.

Table 5. Temperature correction factors

Temp. ($^{\circ}\text{C}$)	Factor	Temp. ($^{\circ}\text{C}$)	Factor
-30	0.82	105	1.29
-18	0.87	120	1.34
-7	0.91	135	1.39
5	0.94	150	1.43
15	0.98	160	1.48
20	1.00	175	1.53
25	1.02	190	1.58
35	1.06	205	1.62
45	1.09	230	1.72
60	1.13	260	1.81
70	1.17	285	1.91
80	1.21	315	2.00
90	1.25		

Example: The customer specifies a 500 mm centrifugal fan with a BI wheel, in arrangement 1, to provide $3.14\text{ m}^3/\text{s}$ at 0.87 kPa, at 315°C at sea level. For 315°C Table 1 shows a temperature correction factor of 2. Using the temperature correction factor, the static pressure at standard conditions is determined as follows:

$$(\text{Operating Static Pressure}) \times (\text{Temp. Correction Factor}) = (\text{Static Pressure at standard conditions})$$

$$0.87 \times 2 = 1.74\text{ kPa}$$

Turn to page 10 for 500 mm BI fan performance table. Using $3.14\text{ m}^3/\text{s}$ at 1.74 kPa at standard conditions, find the rpm and motor power to be 2404 rpm and 8.2 kW. Note that 8.2 kW required at standard conditions and is also referred as the “starting motor power”. The actual motor power at the operating condition of 315°C and sea level is determined by the following equation:

$$\frac{\text{Motor Power at Standard Conditions}}{\text{Correction Factor}} = \text{Motor Power at Operating Conditions}$$

Industrial Air Handling Fans

Exhaust and Clean Air Applications



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$$\frac{8.2}{2} = 4.1 \text{ kW at Operating Conditions}$$

Therefore, the 500 mm fan providing $3.14 \text{ m}^3 / \text{s}$ at 0.87 kPa, at 315°C will run at 2404 rpm and will require 4.1 kW at operating conditions and 8.2 kW at starting.

When operating at temperatures other than 20°C , the maximum speed of the fan class is affected. To determine the maximum speed at the operating temperature a “maximum safe speed” is applied to the maximum speed of the class. Table 3 shows the maximum safe speed for impellers at 20°C and Table 4 shows the maximum safe speed factors for elevated temperatures. For this example, assuming steel construction, the maximum safe speed factor is 0.92.

b. Fan Calculations for Altitudes other than Sea Level at 20°C

When a fan operates at 20°C but at an altitude other than sea level, an “Altitude Correction Factor” is utilized to convert these conditions to standard conditions. The conversion must be done before the fan can be selected from the performance tables in this catalogue. After the fan is selected at standard conditions, the altitude correction factor is utilized to convert the standard motor power to the operating motor power. This method for correcting altitude is the same as for temperature except the altitude correction factors are found in Table 6.

Table 6. Altitude correction factors

Altitude (m)	Factor	Altitude (m)	Factor
0	1.00	1500	1.20
150	1.02	1650	1.22
300	1.04	1800	1.25
450	1.06	1950	1.27
600	1.08	2100	1.30
750	1.10	2250	1.32
900	1.12	2450	1.35
1050	1.14	2600	1.37
1200	1.16	2750	1.40
1350	1.18	3000	1.45

c. Fan Calculations for Temperature Other than 20°C and Altitude other than Sea Level

When a fan operates at temperature other than 20°C and altitudes other than sea level, the correction factors for both temperature and altitude must be applied. This conversion must be done before the fan can be selected from the performance tables at standard conditions. The temperature and altitude correction factor is utilized to convert the standard motor power to the operating motor power. The “Temperature and Altitude Correction Factor” is calculated as follows:

$$\left\{ \begin{array}{l} \text{Temp. and Altitude} \\ \text{Correction Factor} \end{array} \right\} = \left\{ \begin{array}{l} \text{Temperature} \\ \text{Correction Factor} \end{array} \right\} \times \left\{ \begin{array}{l} \text{Altitude} \\ \text{Correction Factor} \end{array} \right\}$$

For example, if the operating conditions are 230°C and 900 m above sea level, the correction factor is determined as follows:

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Industrial Air Handling Fans

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- I. From Table 5, the temperature correction factor for 230°C is 1.72.
- II. From Table 6, the altitude correction factor for 900 m above sea level is 1.12.
- III. Therefore, $(1.72) \times (1.12) = 1.93$

Performance Data

Capacities given in the performance tables below are for standard air conditions: 20°C at sea level with density of $1.2\text{kg} / \text{m}^3$. For temperature or altitude other than standard, correct for air density. Safe operating speed limits for various temperature conditions and maximum safe factors for alloy impeller construction are shown on page 2.



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Size 315

Legend:			Class I		Class II		Class III		Class IV		Most Efficient Range									
Outlet area = $0.081m^2$			Max. rpm: Class I-3080, Class II-4005, Class III-5063, Class IV-6318																	
Max kW= $0.0525(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
860	0.406	5.08	1245	0.1	1456	0.16	1866	0.32	2251	0.52										
1320	0.623	7.62	1675	0.2	1830	0.29	2115	0.50	2389	0.71	2662	0.95	2932	1.21	3189	1.50				
1760	0.830	10.16	2137	0.4	2260	0.50	2489	0.75	2704	1.02	2913	1.30	3116	1.59	3321	1.90	3526	2.22	3731	2.56
2200	1.04	12.7	2614	0.7	2716	0.83	2908	1.11	3069	1.42	3254	1.76	3433	1.95	3599	2.45	3765	2.81	3928	3.18
2640	1.25	15.24	3099	1.13	3185	1.30	3350	1.62	3508	2.00	3660	2.35	3807	2.74	3951	3.14	4091	3.55	4230	4.00
3080	1.45	17.78	3588	1.73	3663	1.90	3807	2.30	3947	2.68	4062	3.10	4212	3.54	4340	4.00	4466	4.44	4589	4.90
3520	1.66	20.32	4060	2.52	4146	2.73	4274	3.15	4399	3.58	4521	4.05	4639	4.50	4754	5.00	4867	5.52	4979	6.00
3960	1.87	22.86	4575	3.53	4633	3.75	4749	4.23	4861	4.71	4971	5.21	5079	5.73	5185	6.26	5268	6.80	5369	7.37
4400	2.07	25.40	5071	4.80	5124	5.0	5228	5.56	5330	6.08	5431	6.63	5530	7.18	5627	7.75	5722	8.35	5816	9.00
4840	2.28	27.94	5567	6.31	5616	6.60	5711	7.16	5805	7.73	5897	8.25	5989	8.92	6078	9.53	6167	10.16	6254	10.8
5280	2.50	30.48	6065	8.14	6109	8.45	6197	9.05	6284	9.67										
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
860	0.406	5.08																		
1320	0.623	7.62																		
1760	0.830	10.16	3932	2.92	4125	3.29	4315	3.70	4501	4.12										
2200	1.04	12.7	4091	3.56	4254	3.96	4418	4.36	4583	4.78	4745	5.21	4905	5.66	5214	6.61	5516	7.64		
2640	1.25	15.24	4369	4.40	4507	4.83	4643	5.26	4779	5.71	4914	6.17	5050	6.64	5324	7.62	5597	8.63	5864	9.69
3080	1.45	17.78	4710	5.38	4830	5.86	4949	6.36	5068	6.86	5186	7.36	5303	7.87	5537	8.90	5769	9.98	6002	11.1
3520	1.66	20.32	5069	6.56	5197	7.10	5303	7.62	5409	8.16	5513	8.72	5617	9.28	5826	10.4	6032	11.6	6236	12.8
3960	1.87	22.86	5469	7.93	5569	8.52	5687	9.10	5784	9.70	5879	10.3	5974	10.9	6160	12.2				

8

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4400	2.07	25.40	5908	9.56	5999	10.2	6089	10.8	6179	11.5	6268	12.1						
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Size 355

Legend:		Class I		Class II		Class III		Class IV		Most Efficient Range										
Outlet area = $0.104\,m^2$						Max. rpm: Class I-2732, Class II-3554, Class III-4511, Class IV-5604														
Max kW= $0.096(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
1120	0.53	5.10	1153	0.12	1377	0.22	1729	0.42												
1680	0.80	7.62	1513	0.26	1687	0.39	1999	0.66	2256	0.94	2483	1.25	2705	1.60	2931	2.00				
2240	1.06	10.16	1911	0.51	2047	0.66	2306	1.00	2547	1.36	2755	1.72	2946	2.11	3124	2.50	3292	2.92	3457	3.37
2800	1.32	12.70	2325	0.90	2437	1.08	2651	1.47	2857	1.86	3057	2.34	3238	2.80	3404	3.25	3561	3.73	3711	4.21
3360	1.58	15.24	2748	1.46	2843	1.67	3027	2.12	3202	2.60	3374	3.10	3544	3.63	3706	4.18	3857	4.73	3998	5.27
3920	1.85	17.78	3176	2.23	3358	2.47	3419	2.98	3574	3.52	3724	4.07	3871	4.66	4017	5.26	4162	5.89	4301	6.53
4480	2.11	20.32	3607	3.25	3679	3.52	3822	4.10	3960	4.68	4095	5.30	4226	5.93	4356	6.60	4484	7.27	4612	7.96
5040	2.38	22.86	4040	4.54	4105	4.84	4233	5.48	4458	6.13	4480	6.81	4599	7.50	4717	8.22	4832	8.94	4946	9.69
5600	2.64	25.40	4476	6.20	4534	6.79	4650	7.18	4763	7.90	4875	8.64	4984	9.39	5092	10.2	5198	10.9	5302	11.7
6160	2.90	27.94	4912	8.10	4965	8.48	5071	9.24	5175	10.0	5277	10.81	5378	11.6	5478	12.5	5576	13.3		
6720	3.17	30.48	5349	10.4	5398	10.8	5496	11.7	5591	12.5										
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
2240	1.06	10.16	3625	3.85	3795	4.36	3964	4.90												
2800	1.32	12.70	3854	4.71	3990	5.22	4123	5.74	4256	6.30	4388	6.87	4523	7.48	4795	8.77				
3360	1.58	15.24	4132	5.82	4263	6.39	4389	6.97	4512	7.56	4629	8.16	4743	8.77	4966	10.0	5186	11.4	5410	12.8
3920	1.85	17.78	4433	7.18	4558	7.81	4677	8.44	4793	9.10	4905	9.73	5015	10.4	5229	11.8	5431	13.2		
4480	2.11	20.32	4739	8.70	4862	9.42	4980	10.2	5093	10.9	5202	11.6	5307	12.4	5510	13.8				
5040	2.38	22.86	5060	10.5	5175	11.3	5288	12.1	5399	12.9	5507	10.3								
5600	2.64	25.40	5406	12.6	5509	13.4														

PROCESS INTEGRATION COMPANY

10

Trasht Office: Tehran, Tarasht, Timuri Street, before Yadegar Imam Highway, Mehrangar Complex (No. 64), 1st

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 400

Legend:		Class I		Class II		Class III		Class IV		Most Efficient Range										
Outlet area = $0.132\,m^2$						Max. rpm: Class I-2425, Class II-3153, Class III-4002, Class IV-4974														
Max kW= $0.195(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
1420	0.67	5.08	898	0.13	1103	0.25														
2130	1.01	7.62	1198	0.29	1316	0.43	1583	0.75	1866	1.14										
2840	1.34	10.2	1526	0.55	1617	0.73	1795	1.11	1996	1.52	2207	1.99	2419	2.51	2626	3.08				
3550	1.68	12.70	1865	0.96	1940	1.18	2083	1.63	2225	2.10	2382	2.61	2546	3.15	2715	3.74	2887	4.37	3055	5.04
4260	2.01	15.24	2210	1.55	2273	1.81	2396	2.33	2514	2.88	2631	3.44	2757	4.04	2890	4.66	3028	5.31	3167	6.00
4970	2.34	17.78	2559	2.35	2613	2.65	2720	3.25	2824	3.88	2924	4.51	3025	5.17	3128	5.85	3238	6.55	3353	7.28
5680	2.68	20.32	2910	3.42	2958	3.75	3051	4.43	3144	5.14	3235	5.85	3323	6.58	3410	7.32	3499	8.08	3591	8.86
6390	3.02	22.86	3363	4.77	3305	5.14	3389	5.90	3471	6.67	3553	7.47	3634	8.28	3712	9.10	3790	9.92	3868	10.8
7100	3.35	25.40	6317	6.42	3655	6.86	3730	7.70	3805	8.55	3879	9.42	3953	10.3	4025	11.2	4096	12.1	4166	13.0
7810	3.69	27.94	3971	8.48	4006	8.94	4074	9.85	4143	10.8	4210	11.7	4278	12.7	4345	13.7	4411	14.7	4476	15.6
8520	4.02	30.48	4326	10.9	4358	11.4	4421	12.4	4484	13.4	4546	14.4	4608	15.5	4670	16.5	4731	17.6	4792	18.7
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
3550	1.68	12.70	3221	5.74																
4260	2.01	15.24	3310	6.73	3454	7.50	3594	8.29	3733	9.11	3871	9.97								
4970	2.34	17.78	3470	8.02	3588	8.80	3708	9.62	3831	10.5	3954	11.3	4076	12.25	4315	14.1	4551	16.1		
5680	2.68	20.32	3687	9.67	3786	10.5	3888	11.3	3991	12.2	4095	13.1	4199	14.0	4413	15.9	4628	18.0	4838	20.1
6390	3.02	22.86	3947	11.6	4029	12.5	4114	13.4	4201	14.3	4290	15.2	4381	16.2	4565	18.2	4750	20.2	4941	22.5
7100	3.35	25.40	4236	13.9	4306	14.9	4378	15.8	4451	16.8	4526	17.8	4604	18.8	4763	20.9	4927	23.0		
7810	3.69	27.94	4540	16.7	4603	17.6	4676	18.7	4731	19.7	4795	20.7	4861	21.8						
8520	4.02	30.48	4852	19.7	4911	20.8	4969	21.9												

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 450

Legend:		Class I		Class II		Class III		Class IV		Most Efficient Range										
Outlet area = $0.167\,m^2$						Max. rpm: Class I-2156, Class II-2802, Class III-3557, Class IV-4421														
Max kW= $0.345(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
1800	0.85	5.08	799	0.17	981	0.31														
2700	1.27	7.62	1066	0.37	1171	0.55	1408	0.95	1659	1.44										
3600	1.70	10.2	1358	0.70	1439	0.93	1597	1.40	1775	1.93	1962	2.53	2151	3.19	2334	3.91				
4500	2.12	12.7	1660	1.22	1726	0.49	1854	2.07	1980	2.67	2118	3.31	2264	4.00	2414	4.74	2567	5.54	2716	6.39
5400	2.55	15.2	1967	1.97	2023	2.29	2132	2.96	2237	3.65	2341	4.37	2452	5.12	2571	5.91	2693	6.73	2816	7.61
6300	2.97	17.8	2278	3.00	2326	3.37	2420	4.13	2513	4.93	2602	5.73	2691	6.56	2783	7.42	2880	8.31	2982	9.23
7200	3.40	20.3	2590	3.26	2632	4.76	2716	5.63	2798	6.52	2878	6.90	2956	8.34	3034	9.28	3112	10.2	3194	11.3
8100	3.82	22.7	2904	6.06	2942	6.53	3016	7.50	3089	8.48	3162	9.50	3234	10.5	3303	11.5	3372	12.6	3441	13.7
9000	4.25	25.4	3219	6.14	3253	8.71	3320	9.78	3386	10.9	3452	12.0	3517	13.1	3582	14.2	3645	15.4	3707	16.5
9900	4.67	27.9	3535	10.8	3565	11.4	3626	12.5	3687	13.7	3747	14.9	3807	16.1	3866	17.4	3925	18.6	3983	19.9
10800	5.10	30.5	3851	13.9	3879	14.5	3935	15.8	3990	17.0	4046	18.3	4101	19.7	4146	21.0	4210	22.3	4264	23.7
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
4500	2.12	12.7	2863	7.28																
5400	2.55	15.2	2943	8.53	3070	9.50	3195	10.5	3318	11.5	3441	12.7								
6300	2.97	17.8	3086	10.2	3191	11.2	3297	12.2	3406	13.3	3515	14.4	3624	15.5	3836	17.9	4046	20.5		
7200	3.40	20.3	3279	12.3	3368	13.3	3458	14.4	3549	15.5	3641	16.6	3734	17.8	3924	20.2	4115	22.8	4301	25.5
8100	3.82	22.7	3512	14.8	3584	15.9	3659	17.0	3737	18.8	3816	19.4	3896	20.5	4059	23.0	4224	25.7	4393	28.5
9000	4.25	25.4	3769	17.7	3831	18.9	3895	20.1	3959	21.4	4026	25.6	4095	23.9	4236	26.5	4382	29.2		
9900	4.67	27.9	4039	21.1	4096	22.4	4152	23.7	4209	25.0	4266	27.3	4324	27.7						
10800	5.10	30.5	4317	25.1	4370	19.8														

12

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY



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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 500

Legend:		Class I	Class II		Class III		Class IV		Most Efficient Range											
Outlet area = 0.21m ²			Max. rpm: Class I-1941, Class II-2523, Class III-3202, Class IV-3981																	
Max kW= 0.585(rpm/1000) ³																				
cfm	flow m ³ / s	OV m / s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
2220	1.05	5.08	721	0.22	864	0.37														
3330	1.57	7.62	951	0.44	1057	0.67	1249	1.15	1440	1.69										
4440	2.10	10.2	1200	0.85	1287	1.12	1442	1.71	1586	2.36	1728	3.02	1871	3.76	2019	4.56				
5550	2.62	12.7	1458	1.47	1532	1.79	1665	2.50	1788	3.25	1904	4.03	2019	4.86	2132	5.69	2246	6.58	2361	7.52
6660	3.14	15.2	1721	2.38	1785	2.75	1902	3.55	2011	4.42	2114	5.32	2212	6.25	2308	7.21	2404	8.20	2498	9.19
7770	3.67	17.8	1987	3.62	2043	4.05	2148	4.96	2246	5.92	2338	6.94	2428	7.99	2513	9.04	2597	10.1	2679	11.3
8880	4.19	20.3	2256	5.26	2305	5.74	2400	6.76	2489	7.81	2574	8.94	2654	10.1	2733	11.3	2810	12.5	2885	13.7
9990	4.71	22.7	2526	7.33	2570	7.88	2656	9.00	2738	10.2	2816	11.5	2891	12.7	2963	13.9	3034	15.3	3103	16.6
11100	5.23	25.4	2797	9.92	2837	10.5	2916	11.8	2991	13.0	3063	14.3	3133	15.7	3200	17.1	3266	18.5	3330	20.0
12210	5.76	27.9	3069	13.1	3106	13.7	3178	15.1	3247	16.5	3315	17.9	3380	19.3	3443	20.8	3505	22.4	3565	23.9
13320	6.30	30.5	3341	16.8	3375	17.5	3442	19.0	3506	20.5	3569	22.0	3630	23.6	3690	25.2	3748	26.8	3805	28.5
cfm	flow m ³ / s	OV m / s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
5550	2.62	12.7	2479	8.52	2598	9.57														
6660	3.14	15.2	2593	10.2	2687	11.3	2783	12.4	2880	13.6	2979	14.8	3078	16.0						
7770	3.67	17.8	2761	12.4	2843	13.6	2924	14.7	3005	15.9	3085	17.1	3167	18.4	3333	21.1	3501	23.9	3670	26.9
8880	4.19	20.3	2957	15.0	3029	16.2	3101	17.5	3173	18.8	3244	20.1	3315	21.5	3457	24.2	3599	27.1	3743	30.1
9990	4.71	22.7	3171	18.0	3237	19.3	3302	20.7	3366	22.2	3430	23.6	3493	25.0	3621	28.9	3748	31.0	3873	34.1
11100	5.23	25.4	3393	21.5	3455	23.0	3517	24.5	3576	26.0	3635	27.5	3693	29.1	3808	32.3	3923	35.6		
12210	5.76	27.9	3624	25.5	3681	27.1	3739	28.8	3795	30.1	3851	32.1	3906	33.7						
13320	6.30	30.5	3860	30.2	3915	31.9	3968	33.6												

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 560

Legend:			Class I		Class II		Class III				Class IV		Most Efficient Range							
Outlet area = $0.26m^2$			Max. rpm: Class I-1732, Class II-2252, Class III-2858, Class IV-3553																	
Max kW= $1.05(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
2790	1.32	5.08	643	0.20	771	0.47														
4185	1.97	7.62	849	0.56	943	0.84	1115	1.45	1285	2.13										
5580	2.63	10.2	1071	1.06	1148	1.40	1287	2.15	1415	2.95	1542	3.80	1670	4.72	1801	5.73				
6975	3.29	12.7	1301	1.84	1367	2.26	1486	3.14	1595	4.98	1699	5.08	1801	6.10	1902	7.16	2004	8.27	2107	9.46
8370	3.95	15.2	1535	2.98	1592	3.46	1697	4.47	1794	5.56	1886	6.69	1973	7.85	2059	9.06	2144	10.3	2229	11.5
9765	4.61	17.8	1773	4.54	1823	5.09	1917	6.23	2004	7.45	2086	8.72	2166	10.0	2243	11.4	2317	12.8	2390	14.1
11160	5.27	20.3	2013	6.61	2057	7.21	2141	8.49	2221	9.82	2296	11.2	2368	12.7	2439	14.2	2507	15.7	2574	17.2
12555	5.92	22.7	2254	9.22	2293	9.90	2370	11.3	2443	12.8	2513	14.3	2579	15.9	2644	17.5	2707	19.2	2769	20.9
13950	6.58	25.4	2496	12.5	2532	13.2	2601	14.8	2669	16.4	2733	18.0	2796	19.7	2856	21.5	2914	23.3	2971	26.6
15345	7.24	27.9	2738	16.4	2771	17.2	2835	18.9	2897	20.7	2957	22.4	3016	24.3	3072	26.2	3127	28.1	3181	30.1
16740	7.90	30.5	2981	21.2	3012	22.1	3071	23.9	3129	25.8	3185	27.7	3239	29.6	3293	31.7	3344	33.7	3395	35.8
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
6975	3.29	12.7	2212	10.7	2317	12.0														
8370	3.95	15.2	2313	12.8	2397	14.2	2483	15.6	2570	17.0	2658	18.6	2746	20.1						
9765	4.61	17.8	2463	15.6	2536	17.0	2609	18.5	2681	20.0	2753	21.6	2825	23.1	2973	26.5	3124	30.0	3274	33.7
11160	5.27	20.3	2638	18.8	2703	20.4	2767	22.0	2831	23.7	2895	25.3	2958	27.0	3084	30.4	3211	34.0	3339	37.8
12555	5.92	22.7	2829	22.6	2888	24.3	2946	26.1	3003	27.8	3060	29.7	3117	31.5	3231	35.2	3344	39.0	3456	42.9
13950	6.58	25.4	3027	27.0	3083	28.9	3138	30.8	3191	32.7	3243	34.6	3295	36.6	3397	40.6	3500	44.7		
15345	7.24	27.9	3233	32.1	3285	34.1	3336	36.2	3386	38.2	3436	40.3	3485	42.4						
16740	7.90	30.5	3444	37.9	3493	40.1	3541	42.3												

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY



16

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 635

Legend:		Class I		Class II		Class III		Class IV		Most Efficient Range										
Outlet area = $0.33\,m^2$			Max. rpm: Class I-1540, Class II-2002, Class III-2541, Class IV-3159																	
Max kW= $1.93(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
3530	1.67	5.08	555	0.32	680	0.58														
5295	2.50	7.62	735	0.68	813	1.00	977	1.75	1145	2.62										
7060	3.33	10.2	930	0.96	993	1.17	1111	2.59	1233	3.58	<u>1361</u>	<u>4.65</u>	<u>1486</u>	<u>5.81</u>	1607	7.09				
8825	4.16	12.7	1133	2.23	1186	2.74	1282	3.79	1376	4.92	1473	6.12	1572	7.40	1675	8.73	1777	10.1	1876	11.6
10590	5.00	15.2	1339	3.61	1384	4.19	1469	5.41	1548	6.71	1626	8.06	1706	9.47	1787	10.9	1870	12.5	1955	14.0
12355	5.83	17.8	1548	5.49	1587	6.16	1663	7.56	1733	9.01	1800	10.5	1867	12.1	1935	13.7	2004	15.4	2074	17.1
14120	6.66	20.3	1758	7.95	1793	8.72	1860	10.3	1925	11.9	1986	13.6	2044	15.3	2102	17.1	2161	18.9	2221	20.8
15885	7.50	22.7	1970	11.1	2001	12.0	2062	13.7	2120	15.5	2177	17.3	2231	19.2	2283	21.2	2334	23.1	2386	25.1
17650	8.33	25.4	2182	15.0	2210	15.9	2265	17.9	2319	19.8	2371	21.9	2422	23.9	2470	26.0	2517	28.1	2564	30.3
19415	9.16	27.9	2395	19.8	2420	20.8	2471	22.9	2520	25.0	2569	27.2	2617	29.5	2662	31.7	2706	34.0	2749	36.3
21180	10.0	30.5	2608	25.4	2632	26.6	2678	28.8	2724	31.2	2769	33.6	2813	36.0	2856	38.4	2898	40.8	2939	43.3
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
8825	4.16	12.7	1973	13.2	2069	14.9														
10590	5.00	15.2	2041	15.7	2126	17.4	2209	19.2	2290	21.0	2371	22.9	2451	24.9						
12355	5.83	17.8	2144	18.8	2216	20.7	2289	22.5	2363	24.4	2436	26.4	2508	28.4	2649	32.6	2787	37.1	2923	41.9
14120	6.66	20.3	2282	22.7	2343	24.6	2404	26.6	2466	28.7	2528	30.7	2592	32.8	2721	37.1	2848	41.7	2972	46.5
15885	7.50	22.7	2439	27.2	2492	29.3	2546	31.4	2600	33.6	2654	35.8	2709	38.1	2819	42.7	2932	47.4	3047	52.3
17650	8.33	25.4	2610	32.5	2657	34.8	2705	37.1	2753	39.4	2801	41.8	2849	44.1	2946	49.0	3045	54.0	3146	59.2
19415	9.16	27.9	2791	38.7	2834	41.1	2876	43.6	2918	46.0	2961	48.5	3005	51.1	3093	56.3				
21180	10.0	30.5	2978	45.8	3018	48.4	3056	51.0	3095	53.6	3134	56.3								

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 710

Legend:		Class I		Class II		Class III		Class IV		Most Efficient Range										
Outlet area = 0.42 m^2			Max. rpm: Class I-1366, Class II-1777, Class III-2255, Class IV-2803																	
Max kW= $3.45(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
4490	2.12	5.08	493	0.41	604	0.74														
6735	3.18	7.62	653	0.86	722	1.28	868	2.23	1016	3.34										
8980	4.24	10.2	826	1.63	882	2.17	986	3.30	1094	4.55	1208	5.91	1319	7.39	1427	9.02				
11225	5.30	12.7	1006	2.85	1053	3.48	1139	4.83	1222	6.26	1308	7.79	1396	9.42	1487	11.1	1577	12.9	1665	14.8
13470	6.36	15.2	1190	4.60	1230	5.35	1305	6.75	1374	8.53	1444	10.3	1515	12.1	1587	13.9	1660	15.9	1735	17.9
15715	7.42	17.8	1375	6.99	1410	7.85	1477	9.60	1540	11.5	1599	13.4	1658	15.4	1718	17.4	1780	19.6	1841	21.7
17960	8.48	20.3	1562	10.1	1593	11.1	1653	13.1	1710	15.2	1764	17.3	1816	19.5	1867	21.7	1919	24.1	1973	26.4
20205	9.54	22.7	1750	14.2	1778	15.2	1832	17.5	1884	19.8	1934	22.1	1981	24.5	2027	26.9	2073	29.4	2119	32.0
22450	10.60	25.4	1939	19.1	1964	20.4	2013	22.8	2060	25.3	2106	27.8	2151	30.5	2194	33.1	2236	35.8	2277	38.6
24695	11.66	27.9	2128	25.2	2151	26.5	2195	29.2	2239	31.9	2282	34.7	2324	37.6	2364	40.4	2404	43.3	2442	46.3
26940	12.72	30.5	2317	32.4	2338	33.9	2379	36.8	2420	39.8	2460	42.8	2499	45.8	2537	48.9	2574	52.0	2610	55.2
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
11225	5.30	12.7	1751	16.8	1836	19.0														
13470	6.36	15.2	1812	20.0	1887	22.1	1960	24.4	2033	26.7	2104	29.1	2175	31.7						
15715	7.42	17.8	1904	24.0	1967	26.3	2032	28.7	2097	31.0	2162	33.5	2226	36.1	2351	41.5	2474	47.2	2594	53.2
17960	8.48	20.3	2026	28.9	2080	31.3	2134	33.9	2189	36.4	2245	39.1	2301	41.8	2415	47.2	2528	53.0	2638	59.1
20205	9.54	22.7	2166	34.6	2213	37.3	2261	40.9	2308	42.7	2356	45.5	2405	48.4	2503	54.3	2603	60.3	2705	66.5
22450	10.60	25.4	2318	41.4	2360	44.3	2402	47.2	2444	50.1	2487	53.1	2530	56.2	2616	62.3	2703	68.7	2792	75.3
24695	11.66	27.9	2479	49.3	2517	52.4	2554	55.5	2592	58.6	2630	61.8	2669	65.1	2746	71.6				
26940	12.72	30.5	2646	58.4	2680	61.6	2715	65.0	2749	62.3	2783	71.7								

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 810

Legend:			Class I		Class II		Class III		Class IV		Most Efficient Range									
Outlet area = 0.53 m^2			Max. rpm: Class I-1213, Class II-1576, Class III-2000, Class IV-2487																	
Max kW= $6.29(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
5700	2.69	5.08	425	0.49	517	0.87														
8550	4.94	7.62	558	1.05	622	1.54	746	2.65	863	3.89	979	5.31								
11400	5.38	10.2	702	1.99	755	2.63	851	3.98	945	5.43	1034	7.00	1121	8.62	1208	10.4	1296	12.4		
14250	6.73	12.7	864	3.44	901	4.22	977	5.85	1054	7.56	1130	9.33	1204	11.2	1275	13.1	1344	15.1	1414	17.2
17100	8.07	15.2	1024	5.55	1054	6.46	1116	8.37	1180	10.3	1244	12.4	1308	14.5	1371	16.7	1432	18.9	1492	21.2
19950	9.42	17.8	1185	8.43	1211	9.50	1263	11.7	1317	13.9	1372	16.2	1427	18.6	1482	21.0	1536	23.5	1590	26.0
22800	10.76	20.3	1347	12.2	1370	13.4	1416	15.9	1462	18.4	1509	21.0	1557	23.6	1605	26.3	1653	29.0	1701	31.8
25650	12.11	22.7	1510	17.0	1530	18.4	1571	21.1	1612	23.9	1653	26.8	1695	29.7	1738	32.7	1781	35.7	1823	38.7
28500	13.45	25.4	1674	23.0	1692	24.5	1728	27.5	1765	30.6	1802	33.8	1839	36.9	1877	40.2	1915	43.5	1954	46.8
31350	14.8	27.9	1838	30.3	1854	31.9	1887	35.2	1920	38.6	1954	42.0	1988	45.5	2021	49.0	2056	52.6	2090	56.1
34200	16.14	30.5	2002	39.0	2017	40.8	2047	44.3	2078	48.1	2108	51.7	2139	55.5	2170	59.3	2201	63.1	2232	67.0
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
14250	6.73	12.7	1484	19.5	1554	21.8	1624	24.3												
17100	8.07	15.2	1550	23.5	1609	26.0	1667	28.5	1725	31.1	1784	33.8	1842	36.6	1958	42.5				
19950	9.42	17.8	1644	28.6	1696	31.3	1746	33.9	1796	36.6	1846	39.4	1896	42.3	1996	48.3	2096	54.6	2196	61.2
22800	10.76	20.3	1749	34.7	1796	37.5	1843	40.4	1890	43.4	1935	46.4	1980	49.5	2067	55.7	2154	62.2	2242	69.0
25650	12.11	22.7	1866	41.8	1908	44.9	1951	48.1	1993	51.3	2035	54.5	2077	57.8	2159	64.6	2238	71.4	2316	78.4
28500	13.45	25.4	1992	50.1	2031	53.5	2069	56.9	2107	60.4	2145	63.9	2184	67.5	2260	74.7	2334	82.0	2408	89.6
31350	14.8	27.9	2125	59.8	2160	63.4	2195	67.1	2230	70.8	2265	74.6	2300	78.4	2369	86.1	2439	94.0		
34200	16.14	30.5	2264	70.9	2296	74.8	2328	78.8	2360	82.7	2392	86.8	2424	90.8						

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 900

Legend:		Class I		Class II		Class III		Class IV		Most Efficient Range										
Outlet area = $0.67\,m^2$						Max. rpm: Class I-1078, Class II-1402, Class III-1779, Class IV-2211														
Max kW= $11.32(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
7210	3.40	5.08	378	0.63	459	1.09														
10815	5.10	7.62	496	1.32	553	1.96	663	3.34	767	4.91	879	6.70								
14420	6.81	10.2	679	2.51	671	3.32	756	5.03	840	6.87	919	8.81	997	10.9	1074	13.2	1152	15.6		
18025	8.51	12.7	768	4.35	801	5.34	868	7.38	937	9.56	1004	11.8	1070	14.1	1133	16.6	1195	19.1	1257	21.8
21630	10.21	15.2	910	7.01	936	8.17	992	10.6	1049	13.1	1106	15.7	1163	18.3	1219	21.1	1273	23.9	1326	26.7
25235	11.91	17.8	1053	10.6	1076	12.0	1123	14.7	1171	17.6	1220	20.5	1269	23.5	1317	26.6	1366	29.7	1414	32.9
28840	13.61	20.3	1198	15.5	1218	17.0	1259	20.1	1300	23.3	1342	26.6	1384	29.9	1427	33.2	1470	36.7	1512	40.2
32445	15.31	22.7	1343	21.6	1360	23.2	1397	26.7	1433	30.3	1470	33.9	1507	37.6	1545	41.3	1583	45.1	1621	48.9
36050	17.02	25.4	1488	29.1	1504	31.0	1536	34.8	1569	38.7	1602	42.7	1635	46.7	1669	50.9	1702	54.9	1737	59.2
39655	18.72	27.9	1634	38.3	1648	40.3	1678	44.6	1707	48.8	1737	53.2	1767	57.6	1797	62.0	1827	66.4	1858	71.0
43260	20.42	30.5	1780	49.3	1793	51.5	1820	56.1	1847	60.7	1874	65.4	1901	70.1	1929	75.0	1956	79.7	1984	84.7
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	Rpm	kW
18025	8.51	12.7	1320	24.7	1382	27.6	1444	30.7												
21630	10.21	15.2	1378	29.7	1430	32.8	1482	36.0	1534	39.3	1586	42.7	1637	46.2	1741	53.7				
25235	11.91	17.8	1461	36.2	1507	39.5	1553	42.9	1597	46.3	1641	49.8	1686	53.6	1775	61.2	1864	69.1	1952	77.4
28840	13.61	20.3	1555	43.8	1597	47.5	1639	51.2	1680	54.9	1720	58.7	1760	62.6	1838	70.5	1915	78.6	1993	87.2
32445	15.31	22.7	1659	52.9	1697	56.9	1734	60.8	1772	64.9	1809	68.9	1847	73.2	1919	81.7	1990	90.4	2059	99.2
36050	17.02	25.4	1771	63.4	1805	67.6	1839	72.0	1873	76.4	1907	80.8	1941	85.3	2009	94.4	2075	103.7	2140	113.2
39655	18.72	27.9	1889	75.6	1920	80.1	1952	84.9	1983	89.6	2014	94.4	2045	99.2	2106	108.9	2168	118.8		
43260	20.42	30.5	2012	89.6	2041	94.6	2069	100	2098	104.7	2126	109.6	2155	114.8						

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Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 1000

Legend:		Class I	Class II		Class III		Class IV		Most Efficient Range											
Outlet area = 0.83 m^2			Max. rpm: Class I-970, Class II-1261, Class III-1600, Class IV-1990																	
Max kW= $19.9(rpm/1000)^3$																				
cfm	flow m^3/s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
8900	4.20	5.08	340	0.77	413	1.36														
13350	6.30	7.62	446	1.63	498	2.42	597	4.13	690	6.06	783	8.28								
17800	8.40	10.2	566	3.10	604	4.10	680	6.20	756	8.48	827	10.9	897	13.5	967	16.3	1037	19.3		
22250	10.5	12.7	691	5.37	721	6.60	781	9.11	843	11.8	904	14.6	963	17.5	1020	20.5	1075	23.6	1132	27.0
26700	12.60	15.2	819	8.66	843	10.1	893	13.1	944	16.2	995	19.3	1046	22.6	1097	26.0	1146	29.5	1194	33.1
31150	14.70	17.8	948	13.2	968	14.8	1011	18.2	1053	21.7	1097	25.3	1141	29.0	1185	32.8	1229	36.7	1272	40.6
35600	16.80	20.3	1077	19.0	1096	21.0	1132	24.8	1169	28.7	1207	32.8	1245	36.8	1284	41.0	1322	45.3	1361	49.7
40050	18.90	22.7	1206	26.6	1224	28.7	1256	32.9	1289	37.3	1322	41.8	1356	46.4	1390	51.1	1424	55.6	1458	60.3
44500	21.00	25.4	1339	35.9	1353	38.2	1382	42.9	1412	47.8	1441	52.7	1471	57.7	1501	62.7	1532	67.9	1563	73.0
48950	23.10	27.9	1470	47.3	1483	49.8	1509	54.9	1536	60.3	1563	65.6	1590	71.1	1617	76.5	1644	82.0	1672	87.7
53400	25.20	30.5	1601	60.8	1613	63.6	1637	69.2	1662	75.0	1686	80.7	1711	86.6	1735	94.4	1760	98.4	1785	104.5
cfm	flow m^3/s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
22250	10.5	12.7	1188	30.4	1243	34.0	1299	37.9												
26700	12.60	15.2	1240	36.7	1287	40.5	1334	44.5	1380	48.5	1427	52.7	1474	57.1	1567	66.4				
31150	14.70	17.8	1315	44.7	1356	48.7	1397	52.9	1437	57.2	1477	61.6	1517	66.1	1597	75.5	1677	85.3	1757	95.6
35600	16.80	20.3	1399	54.1	1437	58.6	1475	63.2	1512	67.8	1548	72.5	1584	77.3	1654	87.0	1724	97.2	1794	107.8
40050	18.90	22.7	1493	65.3	1526	70.1	1561	75.1	1594	80.0	1628	85.1	1661	90.2	1727	100.9	1790	111.5	1853	122.5
44500	21.00	25.4	1594	78.3	1624	83.4	1655	88.9	1686	94.4	1716	99.8	1747	105.4	1808	116.6	1867	127.9	1926	139.8
48950	23.10	27.9	1700	93.3	1728	99.0	1756	104.7	1784	110.6	1812	116.5	1840	122.5	1895	134.4	1951	146.7		
53400	25.20	30.5	1811	110.7	1836	116.7	1862	122.9	1887	129.0	1913	135.3	1939	141.7	1990	154.6				

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 1120

Legend:		Class I	Class II		Class III				Class IV				Most Efficient Range								
Outlet area = 1.04m ²			Max. rpm: Class I-866, Class II-1126, Class III-1429, Class IV-1777																		
Max kW= 34.7(rpm/1000) ³																					
cfm	flow m ³ / s	OV m / s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa		
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	
11170	5.27	5.08	304	0.97	369	1.70															
16755	7.91	7.62	399	2.06	444	3.02	533	5.18	616	7.60	699	10.4									
22340	10.54	10.2	506	3.89	539	5.14	608	7.81	675	10.6	739	13.7	801	16.9	863	20.4	926	24.2			
27925	13.18	12.7	618	6.76	644	8.28	698	11.5	753	14.8	807	18.3	860	21.9	911	25.7	961	29.7	1011	33.9	
33510	15.82	15.2	732	10.9	753	12.7	798	16.4	843	20.2	889	24.3	934	28.4	979	32.6	1024	37.1	1066	41.5	
39095	18.45	17.8	847	16.5	865	18.6	903	22.9	941	27.3	980	31.8	1020	36.5	1059	41.2	1098	46.1	1136	50.9	
44680	21.09	20.3	963	23.9	979	26.3	1012	31.2	1045	36.1	1078	41.1	1113	46.4	1147	51.5	1181	56.9	1215	62.3	
50265	23.72	22.7	1079	33.4	1094	36.1	1123	41.5	1152	46.9	1181	52.5	1214	58.2	1242	64.1	1272	69.8	1303	75.8	
55850	26.36	25.4	1196	45.1	1206	48.0	1235	54.0	1261	60.0	1288	66.2	1314	72.4	1341	78.8	1369	85.3	1396	91.7	
61435	29.00	27.9	1313	59.3	1325	62.6	1349	69.1	1372	74.6	1396	82.4	1420	89.1	1445	96.2	1469	103.1	1494	110.1	
67020	31.63	30.5	1431	76.5	1441	79.8	1463	87.0	1485	94.2	1507	101.5	1529	108.9	1551	116.3	1573	123.8	1595	131.3	
cfm	flow m ³ / s	OV m / s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa		
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	
27925	13.18	12.7	1061	38.2	1110	42.7	1160	47.6													
33510	15.82	15.2	1108	46.1	1149	50.8	1191	55.8	1233	61.0	1274	66.1	1316	71.7	1359	83.2					
39095	18.45	17.8	1174	56.0	1212	61.3	1248	66.5	1284	71.9	1319	77.2	1355	83.0	1426	94.7	1498	107.1	1569	120.0	
44680	21.09	20.3	1250	68.0	1284	73.6	1317	79.2	1350	85.1	1383	91.1	1414	96.9	1477	109.2	1539	121.8	1602	135.2	
50265	23.72	22.7	1333	81.8	1364	88.1	1394	94.3	1424	100.5	1454	106.8	1484	113.3	1542	126.4	1599	140.0	1655	153.8	
55850	26.36	25.4	1424	98.3	1451	104.8	1478	111.5	1506	118.5	1533	125.3	1560	132.1	1615	146.4	1668	160.7	1720	175.4	
61435	29.00	27.9	1519	117.2	1544	124.4	1569	131.6	1594	138.9	1619	146.3	1643	153.6	1693	168.8	1743	184.3			
67020	31.63	30.5	1618	139.0	1640	146.5	1663	154.3	1686	162.1	1709	170.0	1732	177.9							

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Website: www.afragroups.ir

Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 1250

Legend:		Class I	Class II		Class III		Class IV		Most Efficient Range											
Outlet area = 1.29m ²			Max. rpm: Class I-776, Class II-1009, Class III-1281, Class IV-1592																	
Max kW= 59.2(rpm/1000) ³																				
cfm	flow m ³ / s	OV m / s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
13910	6.57	5.08	272	1.21	331	2.13														
20865	9.85	7.62	357	2.55	398	3.77	478	6.47	552	9.47	627	13.0								
67820	13.13	10.2	453	4.84	483	6.40	544	9.69	605	13.3	662	17.0	718	21.1	774	25.5	829	30.1		
34775	16.41	12.7	553	8.39	577	10.3	625	14.25	674	18.4	723	22.8	771	27.2	816	32.0	861	37.0	905	42.1
41730	19.70	15.2	655	13.5	675	15.8	714	20.4	755	25.2	796	30.2	837	35.3	877	40.6	917	46.1	955	51.6
48685	22.98	17.8	758	20.5	775	23.1	809	28.5	843	34.0	878	39.6	913	45.3	948	51.2	983	57.3	1018	63.5
55640	26.26	20.3	862	29.8	877	32.8	906	38.7	936	45.0	966	51.2	997	57.7	1028	64.3	1058	70.8	1089	77.7
62595	29.54	22.7	967	41.6	980	44.9	1006	51.6	1032	58.5	1058	65.4	1085	72.5	1112	79.6	1140	87.1	1167	94.4
69550	32.83	25.4	1071	56.1	1083	59.8	1106	67.1	1130	74.8	1153	82.3	1177	90.1	1201	98.0	1226	106.1	1250	104.0
76505	36.11	27.9	1176	73.8	1187	77.9	1208	86.0	1229	94.2	1251	102.7	1272	111.0	1294	119.7	1316	128.4	1338	137.0
83460	39.39	30.5	1281	95.0	1291	99.4	1310	108.2	1330	117.2	1349	126.1	1369	135.4	1389	144.7	1409	154.1	1429	163.5
cfm	flow m ³ / s	OV m / s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
34775	16.41	12.7	950	47.5	995	53.3	1039	59.2												
41730	19.70	15.2	992	57.3	1030	63.3	1067	69.5	1104	75.8	1142	82.5	1179	89.2	1253	103.5				
48685	22.98	17.8	1052	69.8	1085	76.2	1118	82.8	1150	89.4	1182	96.3	1214	103.3	1278	118.0	1342	133.4	1406	150.0
55640	26.26	20.3	1119	84.5	1150	91.6	1180	98.7	1210	106.1	1239	113.5	1267	120.7	1323	135.9	1379	151.8	1435	168.4
62595	29.54	22.7	1194	101.9	1222	109.8	1249	117.4	1276	125.2	1303	133.2	1329	141.0	1382	157.7	1433	174.5	1482	191.3
69550	32.83	25.4	1275	122.2	1300	130.6	1324	138.8	1349	147.5	1373	155.9	1398	164.7	1446	182.0	1494	200.0	1541	218.5
76505	36.11	27.9	1360	145.8	1383	154.8	1405	163.7	1428	173.0	1450	182.1	1472	191.3	1517	210.3	1561	229.3		
83460	39.39	30.5	1449	172.9	1469	182.4	1490	192.2	1510	201.7	1531	211.7	1552	221.7	1592	241.5				

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY



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Industrial Air Handling Fans

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PROCESS INTEGRATION COMPANY

Size 1400

Legend:			Class I		Class II		Class III		Class IV		Most Efficient Range									
Outlet area = 1.62 m ²			Max. rpm: Class I-693, Class II-901, Class III-1143, Class IV-1421																	
Max kW= 106.5(rpm/1000) ³																				
cfm	flow m ³ / s	OV m / s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
17450	8.24	5.08	243	1.52	295	2.66														
26175	12.35	7.62	319	3.21	355	4.72	426	8.08	493	11.9	559	16.2								
34900	16.47	10.2	404	6.06	431	8.02	486	12.2	540	16.6	591	21.4	641	26.5	691	31.9	740	37.8		
43625	20.59	12.7	494	10.6	515	12.9	558	17.9	602	23.1	646	28.6	688	34.3	728	40.1	768	46.2	808	52.8
52350	24.71	15.2	585	17.0	602	19.8	638	25.7	674	31.6	711	37.9	747	44.3	783	50.9	819	57.9	853	64.9
61075	28.83	17.8	677	25.8	692	29.1	722	35.7	753	42.7	784	49.7	815	56.8	847	64.4	878	71.9	909	79.7
69800	32.95	20.3	770	37.4	783	41.1	809	48.6	835	56.3	862	64.2	890	72.4	917	80.4	945	89.0	972	97.4
78525	37.06	22.7	863	52.1	874	56.2	898	64.7	921	73.3	945	82.1	969	91.1	993	100.0	1017	109.0	1042	118.5
87250	41.18	25.4	956	70.3	967	75.1	988	84.4	1009	93.9	1030	103.5	1051	113.2	1072	122.9	1094	132.9	1116	143.0
95975	45.30	27.9	1050	92.7	1059	97.6	1078	107.8	1097	108.1	1116	128.5	1136	139.4	1155	150.0	1175	161.1	1194	171.7
104700	49.42	30.5	1144	119.3	1153	124.9	1170	135.9	1187	146.9	1205	158.5	1222	169.7	1240	181.5	1258	193.4	1275	204.8
cfm	flow m ³ / s	OV m / s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	Rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
43625	20.59	12.7	848	59.6	888	66.8	928	74.4												
52350	24.71	15.2	886	72.0	919	79.3	953	87.3	986	95.2	1019	103.3	1053	112.1	1119	130.0				
61075	28.83	17.8	939	87.5	969	95.7	998	103.8	1027	112.3	1055	120.7	1083	129.4	1141	148.1	1198	167.3	1255	187.5
69800	32.95	20.3	999	106.0	1026	114.7	1053	123.7	1080	133.0	1106	142.3	1131	151.4	1181	170.4	1231	190.4	1281	211.1
78525	37.06	22.7	1066	127.8	1090	137.3	1115	147.3	1139	157.0	1163	167.0	1187	177.1	1234	197.9	1279	218.7	1324	240.4
87250	41.18	25.4	1138	153.2	1160	163.6	1182	174.2	1204	184.9	1226	195.7	1248	206.6	1291	228.4	1334	251.1	1376	274.2
95975	45.30	27.9	1214	182.8	1234	193.9	1254	205.2	1274	216.6	1294	228.2	1314	239.9	1354	263.7	1394	287.9		
104700	49.42	30.5	1293	216.7	1312	229.1	1330	241.0	1348	253.0	1367	265.6	1385	277.9						

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY



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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 1600

Legend:			Class I		Class II		Class III		Class IV		Most Efficient Range									
Outlet area = 2.12 m ²			Max. rpm: Class I-606, Class II-788, Class III-1000, Class IV-1244																	
Max kW= 204.7(rpm/1000) ³																				
cfm	flow m ³ / s	OV m / s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
22790	10.76	5.08	213	2.00	258	3.46														
23185	16.14	7.62	279	4.18	311	6.19	373	10.6	431	15.5	490	21.3								
45580	21.51	10.2	354	7.94	377	10.5	425	15.9	472	21.6	517	27.9	561	34.6	604	41.6	648	49.4		
56975	26.89	12.7	432	13.7	451	16.9	488	23.3	527	30.2	565	37.3	602	44.8	637	52.3	672	60.4	707	68.9
68370	32.27	15.2	512	22.2	527	25.8	558	33.5	590	41.3	622	49.5	654	57.9	685	66.4	716	75.4	746	84.6
79765	37.65	17.8	592	33.6	605	37.8	632	46.7	659	55.8	686	64.7	714	74.4	741	84.1	768	93.8	795	103.9
91160	43.03	20.3	674	48.9	685	53.6	708	63.5	731	73.6	755	84.1	779	94.6	803	105.3	827	116.2	851	127.4
102555	48.41	22.7	755	68.0	765	73.4	786	84.6	806	95.7	827	107.3	848	118.9	869	130.6	890	142.4	912	154.8
113950	53.78	25.4	837	92.0	846	97.9	864	110.0	883	122.6	901	134.9	920	147.9	939	160.9	958	174.0	977	187.0
125345	59.16	27.9	919	121.1	927	127.5	942	141.0	960	154.2	977	168.0	994	182.0	1011	196.1	1028	210.2	1045	224.4
136740	64.54	30.5	1001	155.8	1009	163.2	1024	177.5	1039	192.1	1054	206.7	1070	222.1	1085	237.0	1100	251.9	1116	267.6
cfm	flow m ³ / s	OV m / s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
56975	26.89	12.7	742	77.8	777	87.2	812	97.1												
68370	32.27	15.2	775	93.9	804	103.5	834	114.0	863	124.4	892	135.1	921	146.2	979	169.7				
79765	37.65	17.8	822	114.4	848	125.0	873	135.5	898	146.3	923	157.5	948	169.1	998	193.1	1048	218.2	1098	244.7
91160	43.03	20.3	874	138.3	898	149.9	922	161.8	945	173.7	968	185.9	990	197.9	1034	222.9	1077	248.5	1121	265.8
102555	48.41	22.7	933	167.0	954	179.4	976	192.6	997	205.3	1018	218.2	1039	231.5	1079	257.9	1119	285.5	1158	313.5
113950	53.78	25.4	996	200.2	1015	213.6	1035	227.9	1054	241.7	1073	255.7	1092	269.8	1130	298.5	1167	327.6	1204	358.1
125345	59.16	27.9	1063	239.2	1080	253.4	1098	268.4	1115	283.0	1133	298.5	1150	315.5	1185	344.5	1219	375.2		
136740	64.54	30.5	1134	283.3	1148	299.1	1164	314.9	1180	330.7	1196	346.7	1212	362.9	1244	395.9				

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 1800

Legend:		Class I		Class II		Class III		Class IV		Most Efficient Range										
Outlet area = 2.71m ²			Max. rpm: Class I-539, Class II-701, Class III-889, Class IV-1105																	
Max kW= 366(rpm/1000) ³																				
cfm	flow m ³ /s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
29160	13.76	5.08	190	2.55	231	4.48														
43740	20.65	7.62	250	5.41	278	7.95	333	13.6	384	19.8	435	27.0								
58320	27.53	10.2	318	10.3	338	13.6	380	20.4	422	27.9	461	35.7	500	44.2	538	53.2	576	62.9		
72900	34.41	12.7	388	17.9	404	21.9	437	30.1	471	38.8	505	48.0	537	57.3	569	67.3	599	77.3	630	88.2
87480	41.29	15.2	460	28.9	473	33.6	500	43.2	528	53.3	557	63.9	585	74.7	612	85.4	640	97.1	666	108.6
102060	48.17	17.8	532	43.9	544	49.5	567	60.6	590	71.9	614	83.6	639	96.0	663	108.4	687	121.0	711	134.0
116640	55.05	20.3	605	63.6	615	69.8	635	82.3	656	95.5	676	108.4	597	121.8	719	135.9	740	149.8	761	164.0
131220	61.94	22.7	679	89.1	687	95.6	705	109.7	723	124.1	741	138.6	760	153.8	778	168.5	797	183.8	816	199.4
145800	68.82	25.4	752	120.1	760	127.8	776	143.3	792	159.0	808	174.9	825	191.6	841	207.8	858	224.6	875	241.5
160380	75.70	27.9	826	158.3	833	166.6	848	183.8	862	200.7	877	218.4	892	236.3	906	253.5	921	271.6	937	290.7
174960	82.58	30.5	900	203.9	906	212.6	919	230.8	933	250.0	946	268.6	960	288.2	973	307.0	987	326.9	1001	347.0
cfm	flow m ³ /s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa	
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW
72900	34.41	12.7	661	99.6	692	111.5	722	123.7												
87480	41.29	15.2	692	120.6	717	132.7	743	145.7	769	159.2	794	172.4	820	186.8	871	216.6				
102060	48.17	17.8	734	146.8	757	160.3	779	173.7	802	188.2	823	201.7	845	216.4	889	246.9	933	278.9	977	312.3
116640	55.05	20.3	782	178.5	803	193.1	823	207.5	844	223.1	864	238.5	884	254.3	922	285.4	961	318.9	999	352.9
131220	61.94	22.7	835	215.4	854	231.7	872	247.3	891	264.0	909	280.1	928	297.4	964	331.7	999	366.6	1033	401.8
145800	68.82	25.4	892	258.6	909	275.9	926	293.6	943	311.6	959	328.7	976	346.9	1010	384.2	1043	421.7	1075	459.7
160380	75.70	27.9	952	308.8	967	327.0	983	356.4	998	365.0	1014	384.9	1029	404.1	1059	442.8	1090	483.3		
174960	82.58	30.5	1015	367.0	1029	387.1	1043	407.2	1057	427.4	1071	447.8	1085	468.3						

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Industrial Air Handling Fans

Exhaust and Clean Air Applications



PROCESS INTEGRATION COMPANY

Size 2000

Legend:	Class I		Class II		Class III		Class IV		Most Efficient Range																				
Outlet area = 3.34 m ²																				Max. rpm: Class I-485, Class II-631, Class III-800, Class IV-995									
Max kW= 624(rpm/1000) ³																													
cfm	flow m ³ /s	OV m/s	0.124 kPa		0.248 kPa		0.5 kPa		0.74 kPa		1 kPa		1.24 kPa		1.5 kPa		1.74 kPa		2 kPa										
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW									
35950	16.97	5.08	171	3.15	207	5.47																							
53925	25.45	7.62	225	6.67	250	9.79	299	16.6	346	24.6	392	33.4																	
71900	33.94	10.2	285	12.6	304	16.7	342	25.2	379	34.2	415	44.1	449	54.3	484	65.6	519	77.9											
89875	42.42	12.7	349	22.1	363	26.9	393	37.1	424	48.0	454	59.1	483	70.6	512	83.1	539	95.4	567	108.8									
107850	50.91	15.2	413	35.5	425	41.3	450	53.4	475	65.7	500	78.4	526	92.0	551	105.6	575	119.3	599	133.9									
125825	59.39	17.8	478	53.9	489	60.9	509	74.3	531	88.8	552	103.0	574	117.9	596	133.4	617	148.5	639	164.7									
143800	67.87	20.3	544	78.4	553	86.0	571	101.5	589	117.2	608	133.7	627	150.3	646	167.0	665	184.2	684	201.8									
161775	76.36	22.7	610	109.4	618	118.0	634	135.3	650	152.8	666	170.6	683	189.2	700	208.0	717	226.8	734	246.0									
179750	84.84	25.4	676	147.8	683	157.1	697	176.9	712	195.8	727	215.9	741	235.3	756	255.8	771	276.2	787	297.8									
197725	93.33	27.9	742	194.4	748	204.3	762	226.9	775	247.2	788	268.5	801	290.0	815	312.8	828	334.5	842	357.5									
215700	101.81	30.5	808	250.0	814	261.3	826	284.0	838	307.0	850	330.2	863	354.8	875	378.4	887	402.2	899	426.0									
cfm	flow m ³ /s	OV m/s	2.23 kPa		2.5 kPa		2.73 kPa		3 kPa		3.23 kPa		3.5 kPa		4 kPa		4.5 kPa		5 kPa										
			rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW	rpm	kW									
89875	42.42	12.7	595	122.9	622	137.1	650	152.8																					
107850	50.91	15.2	622	148.4	645	163.6	668	179.3	691	195.6	715	213.2	738	230.6	784	267.3													
125825	59.39	17.8	660	180.8	681	197.7	701	214.4	721	231.6	741	249.3	760	266.6	800	304.6	840	344.4	879	385.1									
143800	67.87	20.3	703	219.7	722	237.9	741	256.6	759	274.8	777	293.8	795	313.3	830	352.6	864	392.5	899	435.5									
161775	76.36	22.7	751	265.6	767	284.4	784	304.6	801	325.0	818	345.7	834	365.7	867	408.7	898	451.0	929	495.0									
179750	84.84	25.4	802	318.5	817	339.5	832	360.9	847	382.6	863	405.9	878	427.9	908	472.9	938	519.6	967	566.7									
197725	93.33	27.9	856	380.4	870	403.6	884	426.9	897	449.1	911	473.0	925	497.4	953	546.8	980	595.1											
215700	101.81	30.5	912	451.2	925	476.6	937	500.4	950	525.9	963	551.6	975	575.8															

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30

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